REMARKS

The specification has been amended to provide a cross-reference to the previously filed International Application. The claims have also been amended to delete multiple dependencies and to place the application into better form for examination. Entry of the present amendment and favorable action on the above-identified application are earnestly solicited.

Attached hereto is a marked-up copy of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version With Markings Showing Changes Made

(Rev. 01/22/01)

VERSION WITH MARKINGS SHOWING CHANGES MADE

The specification has been amended to provide cross-referencing to the International Application.

The claims have been amended as follows:

4. (Amended) A method according to [any one of the preceding claims]claim 1, wherein step (a), a detectable marker element is also inserted in said carrier.

5. (Amended) A method according to [any one of the preceding claims]claim 1, wherein the nucleic acid of interest is a gene encoding a peptide, a protein or an RNA.

6. (Amended) A method according to [any one of the preceding claims]claim 1, wherein the biological membrane is a cell wall.

8. (Amended) A method according to [any one of claims 1-5]claim 1, wherein the biological membrane is a nuclear membrane.

10. (Amended) A method according to [any one of claims 1-5]claim 1, wherein step (b), an FE comprising a protein, each as in HIV protein, e.g. TAT, is provided in said complex, which enables both membrane translocation and nuclear transport of the nucleic acid of interest.

15. (Amended) A synthetic transport entity suitable for use in the method according to [any one of claims 1-10]claim 1, which is comprised of at least one functional element (FE), which is complexed to a binding element (BE) in the form of a peptide nucleic acid (PNA) or a derivative or an analogue thereof, and a nucleic acid carrier, which comprises at least one BE target sequence and a nucleic acid of interest in a vector, said complex being hybridized to said carrier using the BE-BE target interaction.

18. (Amended) A transport entity according to [any one of claims 15-17]claim 15, wherein the nucleic acid of interest is a gene encoding a peptide, a protein or an RNA.

19. (Amended) A transport entity according to [any one of claims 15-18]claim 15, wherein said BE and FE(s) are separated by linker element(s).

20. (Amended) A transport entity according to [any one of claims 15-19]claim 15, which comprises more than one FE-BE=complex, each one of which is hybridized to a separate BE target sequence present on the same carrier.

22. (Amended) A transport entity according to [any one of claims 15-21]claim 15, wherein the FE is an antennapedia peptide.

23. (Amended) A transport entity according to [any one of claims 15=21]claim 15, wherein the FE is a nuclear localization signal (NLS), such as a SV40 large T antigen protein, or a fragment thereof exhibiting nuclear localizing signal properties.

24. A transport entity according to [any one of claims 15-21]claim 15, wherein the FE is a protein, such as an HIV protein, e.g. TAT, exhibiting properties enabling both membrane translocation and nuclear transport.

25. (Amended) A recombinant cell comprising one or more genetic modification(s) provided by use of the method as defined in [any one of claims 1-10]claim 1 or a transport entity as defined in [any one of claims 15-24]claim 15.

26. (Amended) Use of a transport entity according to [any one of claims 15-24]claim 15 or a cell according to claim 25 in gene therapy.

27. (Amended) Use of a transport entity according to [any one of claims 15-24]claim 15 or a cell according to claim 25 in DNA-vaccination.